

August 28, 2001

Mr. Michael Schall  
Dalton Corporation  
P.O. Box 271  
Kendallville, IN 46755

Re: 113-14445  
First Administrative Amendment to  
Part 70 SSM 113-11287-00004

Dear Mr. Schall:

Dalton Corporation was issued a Title V Significant Source Modification permit on November 3, 1999, relating to the operation of gray iron foundry. A letter to OAQ requesting to modify the maximum capacity of shotblast # 7 was received on May 30, 2001. The maximum capacity of shotblast machine # 7 listed in the permit (SSM 113-11287-00004) as 4.0 tons of metal castings per hour, is modified to 14.0 tons of metal castings per hour. The shotblast machine at the maximum capacity of 14.0 tons per hour with a baghouse I to control particulate matter (PM) emissions will comply with 326 IAC 6-3 (Process Operations) and with 326 IAC 2-2 (PSD) limits. Pursuant to the provisions of 326 IAC 2-7-11(a)(8), the permit is hereby administratively amended as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

- (a) one (1) shotblast machine, identified as #7, with a maximum capacity of ~~4.0~~ **14.0** tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I;
- (b) six (6) grinders, identified as #25-30, each with a maximum capacity of 4.0 tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I.

**SECTION D.1**

**FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

- (a) one (1) shotblast machine, identified as #7, with a maximum capacity of ~~4.0~~ **14.0** tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I; and
- (b) six (6) grinders, identified as #25-30, each with a maximum capacity of 4.0 tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## Emission Limitations and Standards [326 IAC 2-7-5(1)]

### D.1.1 Particulate Matter (PM) [326 IAC 6-3]

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- (a) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from ~~the shotblaster~~ and each of the grinders shall not exceed 10.4 pounds per hour when operating at a process weight rate of 4.0 tons of metal castings per hour each. The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the shotblaster shall not exceed 24.03 pounds per hour when operating at a process weight rate of 14.0 tons of metal castings per hour. The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

### D.1.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

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In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

- (a) The PM emissions from the baghouse I controlling the shot blast machine #7 and grinders #25 - 30 shall not exceed 5.48 pounds per hour.
- (b) The PM10 emissions from the baghouse I controlling the shot blast machine #7 and grinders #25 - 30 shall not exceed 3.20 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

All other conditions of the permit shall remain unchanged and in effect. Please find the entire SSM (113-11287-00004) with the changes due to this First Administrative Amendment (113-14445-00004).

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter please contact Adeel Yousuf, at 973-575-2555 (ext. 3252) or 1-800-451-6027 press 0 and ask for extension 3-6878.

Sincerely,

Original Signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments

AY/EVP

cc: File - Noble County  
Noble County Health Department  
Air Compliance - Dick Sekula  
Permit Tracking - Cynthia Bymaster  
Air Programs Section- Michelle Boner  
Part 70 Application File - T113-6491-00004

# **PART 70 SIGNIFICANT SOURCE MODIFICATION OFFICE OF AIR MANAGEMENT**

**Dalton Corporation, Kendallville Manufacturing Facility  
200 West Ohio Street  
Kendallville, Indiana 46755**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 113-11287-00004	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 3, 1999

  

First Administrative Amendment: 113-14445-00004	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Page Affected: 3, 14  Issuance Date: August 28, 2001

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### **D.1 FACILITY OPERATION CONDITIONS - Baghouse I controlling shotblast machine #7 and grinders #25 - 30**

#### **Certification**

## SECTION A

## SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates stationary gray iron foundry.

Responsible Official: Daniel E. Hirsch, Plant Manager  
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755  
Mailing Address: P.O. Box 271, Kendallville, Indiana 46755  
Phone Number: Daniel E. Hirsch: (219) 347-1820  
SIC Code: 3321  
County Location: Noble  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Major Source under PSD Rules;  
Major Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source is approved to construct and operate the following emission units and pollution control devices:

- (a) one (1) shotblast machine, identified as #7, with a maximum capacity of 14.0 tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I;
- (b) six (6) grinders, identified as #25-30, each with a maximum capacity of 4.0 tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I.

### A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22); and
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## **SECTION B                      GENERAL CONSTRUCTION CONDITIONS**

### **B.1      Permit No Defense [IC 13]**

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### **B.2      Definitions [326 IAC 2-7-1]**

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

### **B.3      Effective Date of the Permit [IC13-15-5-3]**

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

### **B.4      Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]**

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

### **B.5      Significant Source Modification [326 IAC 2-7-10.5(h)]**

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.
- (c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

### **B.6      Emergency Provisions [326 IAC 2-7-16]**

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly

signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Management, Compliance Section), or  
Telephone Number: 317-233-5674 (ask for Compliance Section)  
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.



- (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

## SECTION C

## GENERAL OPERATION CONDITIONS

### C.1 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]

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- (a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this approval, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

### C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

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- (a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM, .

### C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

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- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

- (b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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**C.4 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this approval:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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**C.5 Operation of Equipment [326 IAC 2-7-6(6)]**

All air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

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**C.6 Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

**Testing Requirements [326 IAC 2-7-6(1)]**

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**C.7 Performance Testing [326 IAC 3-6]**

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### **Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

##### **C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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Compliance with applicable requirements shall be documented as required by this approval. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this approval. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### **Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

##### **C.9 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]**

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- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
- (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this approval;
  - (3) The Compliance Monitoring Requirements in Section D of this approval;

- (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this approval; and
- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM, . The CRP shall be prepared within ninety (90) days after issuance of this approval by the Permittee and maintained on site, and is comprised of :
  - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this approval; and
  - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this approval, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the approval unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
  - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, and such request has not been denied or;
  - (3) An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.10 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize

emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### **C.11 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]**

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- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

##### **C.12 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]**

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- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative.

The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this approval;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

**C.13 General Reporting Requirements [326 IAC 2-7-5(3)(C)]**

- (a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (c) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.



## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (a) one (1) shotblast machine, identified as #7, with a maximum capacity of 14.0 tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I; and
- (b) six (6) grinders, identified as #25-30, each with a maximum capacity of 4.0 tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from each of the grinders shall not exceed 10.4 pounds per hour when operating at a process weight rate of 4.0 tons of metal castings per hour each. The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the shotblaster shall not exceed 24.03 pounds per hour when operating at a process weight rate of 14.0 tons of metal castings per hour. The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

#### D.1.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

- (a) The PM emissions from the baghouse I controlling the shot blast machine #7 and grinders #25 - 30 shall not exceed 5.48 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the baghouse I controlling the shot blast machine #7 and grinders #25 - 30 shall not exceed 3.20 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

**D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

**Compliance Determination Requirements**

**D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)]**

The Permittee is not required to test these facilities by this permit. However IDEM may require compliance testing when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the PM and PM10 limits specified in Conditions D.1.1 and D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**D.1.5 Particulate Matter (PM)**

The baghouse identified as I for PM and PM10 control shall be in operation and control emissions from the shotblast machine #7 and grinders #25 - 30 at all times when these processes are in operation.

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

**D.1.6 Visible Emissions Notations**

- (a) Visible emission notations of each of the baghouse I stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

**D.1.7 Parametric Monitoring**

The Permittee shall record the total static pressure drop across the baghouse I used in conjunction with the shotblast machine #7 and grinders #25 - 30, at least once daily when the shotblaster and the grinders are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each of the baghouses shall be maintained within the range of 3.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

#### D.1.8 Baghouse Inspections

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An inspection shall be performed each calendar quarter of all bags controlling the shotblast machine #7 and grinders #25 - 30 when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

#### D.1.9 Broken or Failed Bag Detection

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In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.1.10 Record Keeping Requirements

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- (a) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the baghouse stack exhaust once per shift.
- (b) To document compliance with Condition D.1.7, the Permittee shall maintain the following:
  - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency and differential pressure.
  - (2) Documentation of all response steps implemented, per event .
  - (3) Operation and Compliance Response logs, including work purchases orders, shall be maintained.
  - (4) Quality Assurance/Quality Control (QA/QC) procedures.
  - (5) Operator standard operating procedures (SOP).
  - (6) Manufacturer's specifications or its equivalent.

- (7) Equipment "troubleshooting" contingency plan.
- (8) Documentation of the dates vents are redirected.
- (c) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**PART 70 SOURCE MODIFICATION  
CERTIFICATION**

Source Name: Dalton Corporation, Kendallville Manufacturing Facility  
Source Address: 200 West Ohio Street, Kendallville, Indiana 46755  
Mailing Address: P.O. Box 271, Kendallville, Indiana 46755  
Source Modification No.: 113-11287-00004

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.**

Please check what document is being certified:

- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for an Administrative Amendment to a Part 70 Significant Source Modification**

#### **Source Background and Description**

Source Name:	Dalton Corporation, Kendallville Manufacturing Facility
Source Location:	200 West Ohio Street, Kendallville, Indiana 46755
County:	Noble
SIC Code:	3321
Operation Permit No.:	SSM113-11287-00004
Operating Permit Issuance Date:	November 3, 1999
Administrative Amendment No:	113-14445-00004
Permit Reviewer:	Adeel Yousuf / EVP

The Office of Air Quality (OAQ) has reviewed an application from Dalton Corporation, Kendallville Manufacturing Facility relating to the modification of the shot blaster # 7.

#### **History**

On May 30, 2001, Dalton Corporation - Kendallville Manufacturing Facility submitted an application to the OAQ requesting to modify the maximum capacity of shot blast # 7. Dalton Corporation was issued a Part 70 Significant Source modification on November 3, 1999. The maximum capacity of shotblast machine # 7 was listed in the permit as 4.0 tons of metal castings per hour and should be modified to 14.0 tons of metal castings per hour. This modification to shotblast # 7 does not change the 326 IAC 2-2 (PSD) limit in the original Significant Source Modification (113-11287-0004). An application for a Part 70 permit (T113-6491-00004) for the existing source was received on August 30, 1996 and is currently being reviewed by IDEM.

#### **Permitted Emission Units and Pollution Control Equipment**

The modification consists of the following permitted emission units and pollution control devices:

- (a) One (1) shotblast machine, identified as # 7, with a maximum capacity of 14.0 tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I.

#### **Enforcement Issue**

There are no enforcement actions pending.

#### **Recommendation**

The staff recommends to the Commissioner that the Administrative Amendment be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on May 30, 2001.

### Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (two (2) pages).

### Potential To Emit Before Controls (Modification)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	1042.44
PM-10	104.24
SO <sub>2</sub>	0
VOC	0
CO	0
NO <sub>x</sub>	0

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Chromium	0.40
Manganese	10.42
Cobalt	0.03
Nickel	0.70
Arsenic	0.14
Cadmium	0.06
Selenium	0.01
Lead	0.28
TOTAL	12.04

### Justification for Modification

The Title V Significant Source Modification (113-11287-00004) is being modified through an Administrative Amendment. This modification is being performed pursuant to 326 IAC 2-7-11(a)(8) because it is a revision that will not trigger any applicable requirements or violate a permit term. The shotblast machine at the maximum capacity of 14.0 tons per hour with a baghouse I to control particulate matter (PM) emissions will comply with 326 IAC 6-3 (Process Operations). The potential PM emissions after controls from the shotblast machine will be 4.76 pounds per hour. The PM emissions will not exceed the 326 IAC 6-3 (Process Operations) threshold value of 24.03 pounds per hour as calculated per the equation stated in 326 IAC 6-3-2(c). This modification will also comply with more stringent 326 IAC 2-2 (PSD) limit of the permit, PM emissions from the baghouse I, controlling the shotblast # 7 and the grinders # 25-30, will not exceed 5.48 pounds per hour (PSD limit listed in SSM 113-11287-00004). PM10 emissions from the baghouse I will not exceed 3.2 pounds per hour (PSD limit listed in SSM 113-11287-00004).

## Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	greater than 100
PM10	greater than 100
SO <sub>2</sub>	less than 100
VOC	greater than 100
CO	greater than 100
NO <sub>x</sub>	less than 100

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or greater.
- (b) These emissions were based upon Airs facility Quick-look data.

## Potential to Emit After Controls for the Modification

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Shot blaster # 7	20.85	2.08	-	-	-	-	0.24
Total Emissions	20.85	2.08	-	-	-	-	0.24

## County Attainment Status

The source is located in Noble County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Noble County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.



- (b) Noble County has been classified as attainment or unclassifiable for PM-10, SO<sub>2</sub>, Ozone, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

## **Part 70 Permit Determination**

### **326 IAC 2-7 (Part 70 Permit Program)**

This existing source has submitted their Part 70 (T113-6491-00004) application on August 30, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

## **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this unit.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61) applicable to this unit.

## **State Rule Applicability - Entire Source**

### **326 IAC 2-6 (Emission Reporting)**

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM, PM-10, CO and VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

### **326 IAC 5-1 (Visible Emissions Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

## **State Rule Applicability - Individual Facilities**

### **326 IAC 2-4.1 (New Source Toxics Control)**

This rule applies to new or reconstructed facilities with potential emissions of any single HAP equal to or greater than ten (10) tons per year and potential emissions of combination of HAPs greater than or equal to twenty-five (25) tons per year. Since shotblast # 7 emits less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of combination of HAPs, the requirements of 326 IAC 2-4.1 do not apply.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the one (1) shotblast # 7 shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

$$E = 4.10 (14.0 \text{ TPH})^{0.67} = 24.03 \text{ lbs PM/hr}$$

Based on the above equation, particulate matter emissions from the shotblast # 7 shall be limited to 24.03 pounds per hour.

Controlled Compliance calculation:

$$(20.85 \text{ tons PM/yr}) * (\text{yr}/8,760 \text{ hrs}) * (2,000 \text{ lbs/ton}) = 4.76 \text{ lbs PM/hr}$$

The shot blaster # 7 will comply with the requirements of 326 IAC 6-3-2 by using a baghouse.

Pursuant to SSM 113-11287-00004, issued on November 3, 1999, the baghouse I shall be in operation and control emissions from the shotblast # 7 and grinder # 25-30 at all times when any of these facilities is in operation, in order to comply with this limit.

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

- (a) The PM emissions from the baghouse I controlling shotblast # 7 and grinders # 25-30 shall not exceed 5.48 pounds per hour.
- (b) The PM10 emissions from the baghouse I controlling shotblast # 7 and grinders # 25-30 shall not exceed 3.20 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 shall not apply.

## Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. Pursuant to SSM 113-11287-00004, issued on November 3, 1999, the baghouse I controlling shotblast # 7 and grinders # 25-30 has applicable compliance monitoring conditions as specified below:
  - (a) Daily visible emissions notations of the baghouse I stack exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
  - (b) The Permittee shall record the total static pressure drop across the baghouse controlling the shotblast # 7, at least once daily when the shotblast # 7 and grinders # 25-30 are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 to 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

These monitoring conditions are necessary because the baghouse for the shotblaster and grinding process must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-2 (PSD).

### Proposed Permit Changes

Maximum capacity of shotblast # 7 has been revised in section A.2.

#### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source is approved to construct and operate the following emission units and pollution control devices:

- (a) one (1) shotblast machine, identified as #7, with a maximum capacity of ~~4.0~~ **14.0** tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I;
- (b) six (6) grinders, identified as #25-30, each with a maximum capacity of 4.0 tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I.

Maximum capacity of shotblast # 7 is revised to 14.0 tons per hour, and 326 IAC 6-3 limit is also revised to 24.03 lb/hr based on the new maximum capacity.

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (a) one (1) shotblast machine, identified as #7, with a maximum capacity of ~~4.0~~ **14.0** tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I; and
- (b) six (6) grinders, identified as #25-30, each with a maximum capacity of 4.0 tons of metal castings per hour, with emissions controlled by a new baghouse, identified as baghouse I, and exhausting to stack I.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from ~~the shotblaster~~ and each of the grinders shall not exceed 10.4 pounds per hour when operating at a process weight rate of 4.0 tons of metal castings per hour each. The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from ~~the shotblaster~~ shall not exceed **24.03** pounds per hour when operating at a process weight rate of **14.0** tons of metal castings per hour. The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The PSD limits are unchanged in section D.1.2.

#### D.1.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 not applicable, the following conditions shall apply:

- (a) The PM emissions from the baghouse I controlling the shot blast machine #7 and grinders #25 - 30 shall not exceed 5.48 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the baghouse I controlling the shot blast machine #7 and grinders #25 - 30 shall not exceed 3.20 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 shall not apply.

## **Conclusion**

The operation of this gray iron foundry shall be subject to the conditions of the attached proposed **Administrative Amendment No. 113-14445-00004**.

**Appendix A: Emissions Calculations  
Particulate Matter (PM) Emissions  
Wood Working Operations**

Page 1 of 2 TSD App A

**Company Name:** Dalton Corporation, Kendallville Manufacturing Facility  
**Address City IN Zip:** 200 West Ohio Street, Kendallville, Indiana 46755  
**Permit:** 113-14445  
**Plt ID:** 113-00004  
**Reviewer:** AY/EVP  
**Date:** August 1, 2001

**PM/PM10 emission calculations for shot blaster # 7**

<b>Uncontrolled PM Emissions</b>										
PM:	14 tons/hr	x	17 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 1042.44	<b>tons/yr (uncontrolled)</b>
<b>Controlled PM Emissions</b>										
PM:	14 tons/hr	x	17 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 20.85	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					

<b>Uncontrolled PM10 Emissions</b>										
PM10:	14 tons/hr	x	1.7 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 104.24	<b>tons/yr (uncontrolled)</b>
<b>Controlled PM10 Emissions</b>										
PM10:	14 tons/hr	x	1.7 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 2.08	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					

Emission factors used are from AIRS; SCC 3-04-003-40

**Methodology**

Uncontrolled PM/PM10 = Process Weight Rate (tons/hr) \* Emission Factor (lb/ton) \* (8760 hrs/year) \* (1 ton/2000 lb)

Controlled PM/PM10 = Process Weight Rate (tons/hr) \* Emission Factor (lb/ton) \* (8760 hrs/year) \* (1 ton/2000 lb) x (1- control efficiency %)

**Appendix A: Emissions Calculations  
Particulate Matter (PM) Emissions  
Shot Blaster**

Page 2 of 2 TSD App A

**Company Name:** Dalton Corporation, Kendallville Manufacturing Facility  
**Address City IN Zip:** 200 West Ohio Street, Kendallville, Indiana 46755  
**Permit:** 113-14445  
**Plt ID:** 113-00004  
**Reviewer:** AY/EVP  
**Date:** August 1, 2001

**HAPs emission calculations for shot blaster # 7**

<b>Uncontrolled Chromium Emissions</b>										
Chromium:	14 tons/hr	x	6.46E-03 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 0.40	<b>tons/yr (uncontrolled)</b>
<b>Controlled Chromium Emissions</b>										
Chromium:	14 tons/hr	x	6.46E-03 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 0.01	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					
<b>Uncontrolled Manganese Emissions</b>										
Manganese	14 tons/hr	x	0.17 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 10.42	<b>tons/yr (uncontrolled)</b>
<b>Controlled Manganese Emissions</b>										
Manganese	14 tons/hr	x	0.17 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 0.21	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					
<b>Uncontrolled Cobalt Emissions</b>										
Cobalt	14 tons/hr	x	5.1E-04 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 0.03	<b>tons/yr (uncontrolled)</b>
<b>Controlled Cobalt Emissions</b>										
Cobalt	14 tons/hr	x	5.1E-04 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 0.00	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					
<b>Uncontrolled Nickel Emissions</b>										
Nickel	14 tons/hr	x	1.14E-02 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 0.70	<b>tons/yr (uncontrolled)</b>
<b>Controlled Nickel Emissions</b>										
Nickel	14 tons/hr	x	1.14E-02 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 0.01	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					
<b>Uncontrolled Arsenic Emissions</b>										
Arsenic	14 tons/hr	x	2.21E-03 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 0.14	<b>tons/yr (uncontrolled)</b>
<b>Controlled Arsenic Emissions</b>										
Arsenic	14 tons/hr	x	2.21E-03 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 0.00	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					
<b>Uncontrolled Cadmium Emissions</b>										
Cadmium	14 tons/hr	x	1.02E-03 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 0.06	<b>tons/yr (uncontrolled)</b>
<b>Controlled Cadmium Emissions</b>										
Cadmium	14 tons/hr	x	1.02E-03 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 0.00	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					
<b>Uncontrolled Selenium Emissions</b>										
Selenium	14 tons/hr	x	1.7E-04 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 0.01	<b>tons/yr (uncontrolled)</b>
<b>Controlled Selenium Emissions</b>										
Selenium	14 tons/hr	x	1.7E-04 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 0.00	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					
<b>Uncontrolled Lead Emissions</b>										
Lead	14 tons/hr	x	4.5E-03 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x	= 0.28	<b>tons/yr (uncontrolled)</b>
<b>Controlled Lead Emissions</b>										
Lead	14 tons/hr	x	4.5E-03 lbs/ton	x	8760 hrs/year	x	1/2000 ton/lbs	x (1-0.98)	= 0.01	<b>tons/yr (controlled)</b>
where the baghouse overall control efficiency is equal to					98.00%					

Emission factors used are from AIRS; SCC 3-04-003-40

**Methodology**

Uncontrolled PM/PM10 = Process Weight Rate (tons/hr) \* Emission Factor (lb/ton) \* (8760 hrs/year) \* (1 ton/2000 lb)

Controlled PM/PM10 = Process Weight Rate (tons/hr) \* Emission Factor (lb/ton) \* (8760 hrs/year) \* (1 ton/2000 lb) x (1- control efficiency %)